
PART I

INTRODUCTION AND THE PROPOSED ACTIONS

Chapter 1 OVERVIEW

1.1 Purpose of the Biological Assessment

The U.S. Bureau of Reclamation (Reclamation) submits this biological assessment to the Fish and Wildlife Service, U.S. Department of the Interior (USFWS), and the National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce (NOAA Fisheries), (collectively, the Services) in compliance with Section 7 of the Endangered Species Act (ESA), the implementing regulations for Sections 7(a) – (d) of the ESA found at 50 C.F.R. 402 (ESA regulations), and the Magnuson-Stevens Fishery Conservation and Management Act. Reclamation also referred to *The Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act* (Endangered Species Consultation Handbook), published jointly by the Services (1998), in determining what to include in this biological assessment.

Reclamation proposes to undertake 11 separate Federal actions in the Snake River basin upstream from Brownlee Reservoir (upper Snake River basin) involving future operation and routine maintenance (O&M) activities for 12 Federal reclamation projects. Reclamation is reinitiating consultation because existing biological opinions for current O&M activities will be expiring before the start of the 2005 irrigation season, and some components of the proposed actions differ from the actions consulted upon in the last consultations.

While not required by the ESA or the ESA regulations, Reclamation has chosen, as a matter of administrative convenience, to address all proposed actions in a single biological assessment. In turn, Reclamation is requesting each of the Services, as permitted by 50 C.F.R. 402.14(c), to enter into a single consultation and issue a single biological opinion regarding all 11 proposed actions to the extent formal consultation is required by law.

Section 7(c) of the ESA and the ESA regulations require that a biological assessment be prepared only for Federal actions which are “major construction activities” (see 50 C.F.R. 402.12(b)). None of the 11 proposed actions is such an activity. However, as Figure 3-1 in the Endangered Species Consultation Handbook illustrates, a biological assessment is an optional route an agency may use for actions that do not

1.2 Proposed Actions

involve major construction to determine if formal consultation is required pursuant to 50 C.F.R. 402.13 and 402.14.

Accordingly, Reclamation has chosen to submit this biological assessment to document its analysis of the effects of the proposed actions on ESA-listed species and designated critical habitat, to request concurrence for its “not likely to adversely affect” conclusions, and to request formal consultation for its “likely to adversely affect” conclusions. For those species for which formal consultation is required, this biological assessment fulfills the requirements of 50 C.F.R. 402.14(c), and Reclamation requests the issuance of biological opinions by the Services. If the Services concur in Reclamation’s “not likely to adversely affect” conclusions for certain listed species, then the informal consultation process will be terminated as to those species, and no further action by Reclamation will be necessary (see 50 C.F.R. 402.13(a)).

1.2 Proposed Actions

This biological assessment documents 11 proposed actions. The proposed actions all describe Reclamation’s future operations and routine maintenance at features and facilities that are a part of 12 Federal projects (the Baker, Boise, Burnt River, Little Wood River, Lucky Peak, Mann Creek, Michaud Flats, Minidoka, Owyhee, Palisades, Ririe, and Vale Projects), some of which consist of multiple divisions on separate rivers. Reclamation does not coordinate operation among all 12 projects, but rather operates divisions, projects, or groups of projects independently of each other. Therefore, some actions reflect the operation of only a single project, some reflect the independent operation of different divisions within a single project, and other actions encompass the integrated operation of multiple divisions of a project or multiple projects. These 11 proposed actions are:

- Future O&M in the Snake River system above Milner Dam (Michaud Flats, Minidoka, Palisades, and Ririe Projects).
- Future operations in the Little Wood River system (Little Wood River Project).
- Future O&M in the Owyhee River system (Owyhee Project).
- Future O&M in the Boise River system (Arrowrock Division of the Boise Project and the Lucky Peak Project).
- Future O&M in the Payette River system (Payette Division of the Boise Project).
- Future O&M in the Malheur River system (Vale Project).
- Future O&M in the Mann Creek system (Mann Creek Project).

- Future O&M in the Burnt River system (Burnt River Project).
- Future O&M in the upper Powder River system (Upper Division of the Baker Project).
- Future O&M in the lower Powder River system (Lower Division of the Baker Project).
- Future provision of salmon flow augmentation from the rental or acquisition of natural flow rights.

It is Reclamation's view that the ESA regulations apply to Reclamation's actions only to the extent that Reclamation has discretionary involvement in or control of them. However, as a matter of practicality in this biological assessment, Reclamation has chosen not to differentiate between the discretionary and non-discretionary components of any proposed action. Thus, while many aspects of the proposed actions are, pursuant to state water law, Federal reclamation law, and contracts with water users, non-discretionary on Reclamation's part, this biological assessment analyzes the effects resulting from both the discretionary and non-discretionary components of each proposed action.

During the formal consultation process, it will be important to address the limitations on Reclamation's authority and discretion in implementing the proposed actions. In this regard, Reclamation will work closely with the Services in assuring that: 1) any reasonable and prudent alternatives to the proposed actions, if required, are consistent with the intended purposes of the proposed actions and accurately reflect the limits of Reclamation's statutory and contractual authority and discretion, as well as being economically and technically feasible (see 50 C.F.R. 402.02, definition of "reasonable and prudent alternatives"); and 2) any reasonable and prudent measures (including terms and conditions) in incidental take statements do not alter the basic design or scope of the proposed actions (50 C.F.R. 402.14(i)(2)).

1.3 Action Areas

The analyses of ESA-listed species, designated critical habitat, and essential fish habitat focus on the aquatic and terrestrial environments that Reclamation may affect under the proposed actions. Each proposed action has a distinct action area that begins at the location of that proposed action's farthest upstream effect (e.g., the uppermost extent of the storage reservoir or point of diversion) and continues to the location of its farthest downstream effect (the Columbia River estuary for these proposed actions). Figure 1-1 shows a consolidated view of all the action areas in this consultation. The proposed action descriptions in Chapter 2 show the action area for each proposed action.



Figure 1-1. Consolidated action areas for Reclamation’s 11 proposed actions.

The features and facilities of the 12 Federal projects included in the proposed actions all exist upstream from Brownlee Dam, an Idaho Power Company (Idaho Power) facility on the Snake River at river mile (RM) 285. Beginning at Brownlee Reservoir, the action areas for the separate proposed actions share the Snake River corridor to its confluence with the Columbia River, and then downstream in the Columbia River corridor to its estuary; in other words, any combined effects of the separate actions aggregate at Brownlee Reservoir and extend downstream to the Columbia River estuary.

Reclamation’s proposed actions do not affect any animal or plant that is not found in or near the aquatic environment. The ESA-listed species included in this assessment occur within affected river corridors and reservoirs.

1.4 Basis for “May Affect” Determinations

The purpose of a biological assessment is, among other things, to determine whether a Federal agency must enter into formal consultation pursuant to the ESA regulations. In this regard, the ESA regulations require a Federal agency “...to determine whether any action may affect listed species or critical habitat” (see 50 C.F.R. 402.14(a)). If an agency determines that a proposed action “may affect” a listed species or its critical habitat, then it must enter into formal consultation unless it determines, and the Service(s) concur, that the proposed action may affect, but “...is not likely to adversely affect...,” such species or habitat (see 50 C.F.R. 402.13(a) and 402.14(b)(1)). The ESA regulations (50 C.F.R. 402.14(c)(4)), in describing the information to be submitted to the Services for formal consultation, state only that an agency is to provide “a description of the manner in which the action may affect any listed species or critical habitat and an analysis of cumulative effects...,” with “cumulative effects” defined in 50 C.F.R. 402.02.

In determining whether the proposed actions “may affect” listed species or critical habitat, Reclamation considered the range of effects resulting from its proposed actions in accordance with the regulatory definition of “effects of the action” (50 C.F.R. 402.02). Thus, the hydrologic analyses and associated species analyses contained in this biological assessment address the combined effects of storing and releasing project water from project reservoirs, of diverting project water at downstream points of delivery, and of return flows.

A method for determining effects from the implementation of future O&M activities is not clearly established in either the ESA regulations or the Endangered Species Consultation Handbook. In particular, the ESA regulations do not specify whether the “may effect” determination is to be made by comparing the effects of an action to the “environmental baseline” (as defined by 50 C.F.R. 402.02) or to some other “base” condition.

1.4 Basis for “May Affect” Determinations

Since Reclamation is still working with the Services to identify the proper environmental baseline for these consultations, Reclamation elected to base its “may effect” determinations on the Endangered Species Consultation Handbook’s definitions of the terms “may affect,” “is not likely to adversely affect,” and “is likely to adversely affect.” These terms are not specifically defined in the ESA regulations but are defined at pages xv and xvi of the Endangered Species Consultation Handbook Glossary as follows:

May affect – the appropriate conclusion when a proposed action may pose any effects on listed species or designated critical habitat. When the Federal agency proposing the action determines that a “may affect” situation exists, then they must either initiate formal consultation or seek written concurrence from the Services that the action “is not likely to adversely affect” listed species.

Is not likely to adversely affect – the appropriate conclusion when effects on listed species are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur.

Is likely to adversely affect – the appropriate finding in a biological assessment (or conclusion during informal consultation) if any adverse effect to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not: discountable, insignificant, or beneficial (see definition of “is not likely to adversely affect”). In the event the overall effect of the proposed action is beneficial to the listed species, but is also likely to cause some adverse effects, then the proposed action “is likely to adversely affect” the listed species. If incidental take is anticipated to occur as a result of the proposed action, an “is likely to adversely affect” determination should be made. An “is likely to adversely affect” determination requires the initiation of formal section 7 consultation.

1.4.1 Characterizing Effects from the Implementation of Future O&M Activities

As used in this biological assessment for the purpose of making the required “may effect” determinations, “effects” means conditions or consequences traceable to identified causes. In this context, future operation of a water project may result in two types of effects to listed species and critical habitat that are particularly important to making a “may affect” determination. These may be thought of as continuing effects and new effects.

Continuing effects are physical or biological effects that have occurred in the past, are occurring at present, and will continue to occur in the future. Such effects typically are related to annual diversions, storage, releases, and other annual or periodic O&M activities. These activities can result in annual or periodic increases or decreases in

habitat quantity or quality; such habitat changes can in turn result in annual or periodic increases or decreases in species population numbers, distribution, or related parameters. In this biological assessment, the continuing effects of the proposed actions (storing, releasing, and diversion of project water, and routine maintenance), were taken into account in making “may affect” determinations. However, such continuing effects will be part of the environmental baseline for the purposes of the jeopardy analyses to be performed by the Services.

In ecosystems that are still changing in response to existing project operations (e.g., riverine systems that have not yet reached a new equilibrium in response to recurring diversions, storage, releases, and related activities), the implementation of future O&M activities may result in or contribute to changes in existing conditions. These changes may be thought of as “new effects” and were also taken into account in making the “may affect” determination.

1.4.2 Subsequent Steps in the Consultation Process

While Federal agencies proposing an action are to describe the manner in which the action “may affect” listed species or critical habitat, the Services are, among other things, to evaluate “the effects of the action and cumulative effects on the listed species or critical habitat” and formulate their “biological opinion as to whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat” (50 C.F.R. 402.14(g)). Furthermore, 50 C.F.R. 402.14(h) states that a biological opinion shall include a “detailed discussion of the effects of the action on listed species or critical habitat....”

Reclamation, in making the “may affect” determinations set forth in this biological assessment, draws no conclusions as to whether the proposed actions are or are not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated critical habitat. Rather, the sole purpose of the “may affect” determinations is to determine whether or not formal consultation is required. Reclamation will not reach a decision as to whether the proposed actions that are the subject of this biological assessment comply with the requirements of Section 7(a)(2) of the ESA until it receives and considers the biological opinions to be rendered by the Services.

Furthermore, as noted above, Reclamation is still working with the Services to determine the proper environmental baseline for these consultations. Reclamation will work with the Services as formal consultation proceeds to develop and provide additional information, if necessary, to reach agreement on the environmental baseline.

1.5 Summary of Species Effects

Appendix A contains a complete list of the fifteen species the USFWS has listed in the action areas and the thirteen salmon and steelhead Evolutionarily Significant Units (ESUs) that NOAA Fisheries has listed or proposed for listing in the action areas. Three ESUs have designated critical habitat in the action areas.

Reclamation is submitting this biological assessment to the USFWS and NOAA Fisheries as part of the interagency consultation process for two purposes:

- Reclamation seeks the Services' concurrence for those species that Reclamation has determined the proposed actions are not likely to adversely affect.
- Reclamation seeks the Services' issuance of biological opinions for those species that Reclamation has determined the proposed actions are likely to adversely affect.

1.5.1 Species within the Jurisdiction of the USFWS

Reclamation has determined that the proposed actions will have no effect on Banbury Springs lanx, Bruneau hot springsnail, Canada lynx, grizzly bear, MacFarlane's four o'clock, northern Idaho ground squirrel, and water howellia (see Appendix A).

Reclamation has determined that the proposed actions may affect but are not likely to adversely affect the bald eagle, Bliss Rapids snail, gray wolf, Idaho springsnail, and Snake River physa. Reclamation requests written concurrence from the USFWS for this determination.

Reclamation has also determined that the proposed actions are likely to adversely affect bull trout, the Utah valvata snail, and Ute ladies'-tresses. Reclamation submits this biological assessment to request formal consultation with the USFWS.

1.5.2 Species within the Jurisdiction of NOAA Fisheries

Reclamation has determined that the proposed actions may affect but are not likely to adversely affect nine salmon and steelhead ESUs: Lower Columbia River, Upper Columbia River, and Upper Willamette River Chinook salmon ESUs; Columbia River chum salmon ESU; Lower Columbia River coho salmon ESU (currently proposed for listing); and Lower Columbia River, Middle Columbia River, Upper Columbia River, and Upper Willamette River steelhead ESUs. Reclamation requests written concurrence from NOAA Fisheries for this determination.

Reclamation has also determined that the proposed actions are likely to adversely affect four salmon and steelhead ESUs: Snake River spring/summer and Snake River fall Chinook salmon ESUs, the Snake River sockeye salmon ESU, and the Snake River Basin steelhead ESU. Reclamation has also determined that the proposed actions are likely to adversely affect designated critical habitat for Snake River spring/summer Chinook salmon, Snake River sockeye salmon, and Snake River fall Chinook salmon. Reclamation submits this biological assessment to request formal consultation with NOAA Fisheries.

In compliance with the Magnuson-Stevens Fishery Conservation and Management Act, Reclamation has determined that the proposed actions will not adversely affect essential fish habitat for Upper Columbia River spring Chinook salmon, Middle Columbia River spring Chinook salmon, Upper Columbia River summer/fall Chinook, Deschutes River summer/fall Chinook salmon, Lower Columbia River Chinook salmon, Upper Willamette River Chinook salmon, Lower Columbia River coho salmon, and Southwest Washington coho salmon. Reclamation has determined that the proposed actions will adversely affect essential fish habitat for Snake River fall Chinook salmon and Snake River spring/summer Chinook salmon. Reclamation submits this biological assessment to request that NOAA Fisheries recommend conservation measures to offset potential adverse effects to EFH pursuant Section 305(b)(4)(A) of the Magnuson-Stevens Fishery Conservation and Management Act.

1.6 Literature Cited

Parentetical Reference

NOAA Fisheries and
USFWS 1998

Bibliographic Citation

National Marine Fisheries Service and the U.S. Fish and Wildlife Service. 1998. *The Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act.*

